

## **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.

Application Serial Number: 09/963,693 B  
Source: IE1016  
Date Processed by STIC: 11-15-2004

# ***ENTERED***



IFW16

## RAW SEQUENCE LISTING

DATE: 11/15/2004

PATENT APPLICATION: US/09/963,693B

TIME: 12:40:01

Input Set : N:\Crif3\RULE60\09963693b.raw.txt

Output Set: N:\CRF4\11152004\I963693B.raw

```

1 <110> APPLICANT: Ruvkun, Gary
2   Ogg, Scott
3 <120> TITLE OF INVENTION: THERAPEUTIC AND DIAGNOSTIC TOOLS FOR
4   IMPAIRED GLUCOSE TOLERANCE CONDITIONS
5 <130> FILE REFERENCE: 00786/351004
C--> 6 <140> CURRENT APPLICATION NUMBER: US/09/963,693B
7 <141> CURRENT FILING DATE: 2001-09-25
8 <150> PRIOR APPLICATION NUMBER: US/09/205,658
9 <151> PRIOR FILING DATE: 1998-12-03
10 <150> PRIOR APPLICATION NUMBER: 08/857,076
11 <151> PRIOR FILING DATE: 1997-05-15
12 <150> PRIOR APPLICATION NUMBER: 08/888,534
13 <151> PRIOR FILING DATE: 1997-07-07
14 <150> PRIOR APPLICATION NUMBER: US98/10080
15 <151> PRIOR FILING DATE: 1998-05-15
16 <160> NUMBER OF SEQ ID NOS: 331
17 <170> SOFTWARE: FastSEQ for Windows Version 4.0
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 20
21 <212> TYPE: DNA
22 <213> ORGANISM: Artificial Sequence
23 <220> FEATURE:
24 <223> OTHER INFORMATION: Primer/probe derived from C. elegans
25 <400> SEQUENCE: 1
26   cgctacggca aaaaagtga
28 <210> SEQ ID NO: 2
29 <211> LENGTH: 18
30 <212> TYPE: DNA
31 <213> ORGANISM: Artificial Sequence
32 <220> FEATURE:
33 <223> OTHER INFORMATION: Primer/probe derived from C. elegans
34 <400> SEQUENCE: 2
35   cgatgatgaa gatacccc
37 <210> SEQ ID NO: 3
38 <211> LENGTH: 20
39 <212> TYPE: DNA
40 <213> ORGANISM: Artificial Sequence
41 <220> FEATURE:
42 <223> OTHER INFORMATION: Primer/probe derived from C. elegans
43 <400> SEQUENCE: 3
44   tgatgcgaac ggcgatcgat
46 <210> SEQ ID NO: 4
47 <211> LENGTH: 20

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```

48 <212> TYPE: DNA
49 <213> ORGANISM: Artificial Sequence
50 <220> FEATURE:
51 <223> OTHER INFORMATION: Primer/probe derived from C. elegans
52 <400> SEQUENCE: 4
53     acgctggatc atctacatta                                20
55 <210> SEQ ID NO: 5
56 <211> LENGTH: 22
57 <212> TYPE: DNA
58 <213> ORGANISM: Artificial Sequence
59 <220> FEATURE:
60 <223> OTHER INFORMATION: Primer/probe derived from C. elegans
61 <400> SEQUENCE: 5
62     ggtttaatta cccaagtttg ag                                22
64 <210> SEQ ID NO: 6
65 <211> LENGTH: 20
66 <212> TYPE: DNA
67 <213> ORGANISM: Artificial Sequence
68 <220> FEATURE:
69 <223> OTHER INFORMATION: Primer/probe derived from C. elegans
70 <400> SEQUENCE: 6
71     gctcacgggt cacacaacga                                20
73 <210> SEQ ID NO: 7
74 <211> LENGTH: 20
75 <212> TYPE: DNA
76 <213> ORGANISM: Artificial Sequence
77 <220> FEATURE:
78 <223> OTHER INFORMATION: Primer/probe derived from C. elegans
79 <400> SEQUENCE: 7
80     tgatgcgaac ggcgatcgat                                20
82 <210> SEQ ID NO: 8
83 <211> LENGTH: 21
84 <212> TYPE: DNA
85 <213> ORGANISM: Artificial Sequence
86 <220> FEATURE:
87 <223> OTHER INFORMATION: Primer/probe derived from C. elegans
88 <400> SEQUENCE: 8
89     tgagggccaa ctaaagaaga c                                21
91 <210> SEQ ID NO: 9
92 <211> LENGTH: 20
93 <212> TYPE: DNA
94 <213> ORGANISM: Artificial Sequence
95 <220> FEATURE:
96 <223> OTHER INFORMATION: Primer/probe derived from C. elegans
97 <400> SEQUENCE: 9
98     cgctacggca aaaaagtgaa                                20
100 <210> SEQ ID NO: 10
101 <211> LENGTH: 20
102 <212> TYPE: DNA

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20

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103 <213> ORGANISM: Artificial Sequence
104 <220> FEATURE:
105 <223> OTHER INFORMATION: Primer/probe derived from C. elegans
106 <400> SEQUENCE: 10
107      gacgatcccc aggtgagtat
109 <210> SEQ ID NO: 11
110 <211> LENGTH: 5816
111 <212> TYPE: DNA
112 <213> ORGANISM: Caenorhabditis elegans
113 <220> FEATURE:
114 <221> NAME/KEY: misc_feature
115 <222> LOCATION: (1)...(5816)
116 <223> OTHER INFORMATION: n = A,T,C or G
117 <400> SEQUENCE: 11
118      ggtttaatta cccaagtttg agctccaaga gcacacatct gatcgtcgga ttctactgta      60
119      ctccccgaaa aaccaacaaa aaacacaagt ttttgaacac ttgtaaatagc agacagaacg      120
120      atgacgagaa tgaatattgt cagatgtcgg agacgacaca aaattttgga aaatttgga      180
121      gaagagaatc tcggcccgag ctgctcgtcg acgacttcaa caaccgctgc caccgaagct      240
122      ctcggaacaa ccactgagga tatgaggctt aagcagcagc gaagctcgtc gcgtgccacg      300
123      gagcacgata ttgtcgacgg caatcaccac gacgacgagc acatcacaat gagacggctt      360
124      cgacttgtca aaaattcgcg gacgcggcgt agaacgacgc ccgattcaag tatggactgc      420
125      tatgaggaaa acccgccatc acaaaaaact caataaatta ttcttggatt tctaaaaagt      480
126      catcaatgac gtcattaatg cttttactgc tattecgttt tgtacagccg tgtgcctcaa      540
127      tagtcgaaaa acgatgcggc ccaatcgata ttcgaaatag gccgtgggat attaagccgc      600
128      aatggtcgaa acttggtgat ccgaacgaaa aagatttggc tggtcagaga atggtcaact      660
129      gcacagtggg ggaagggtcg ctgacaatct catttgtact gaaacacaag acaaaagcac      720
130      aagaagaaat gcacgaagt ctacagccaa gatattccca agacgaattt atcacttttc      780
131      cgcactctac tgaaattact ggaactctgc tcgtttttga gactgaagga ttagtgatt      840
132      tgcgtaaaat tttcccaaat cttcgtgtaa ttggaggccg ttcgctgatt caacactatg      900
133      cgctgataat ttatcgaaat ccggttttgg agatcggtct tgacaagctt tccgtaattc      960
134      gaaatggtgg tgtacggata atcgataatc gaaaactgtg ctacacgaaa acgattgatt      1020
135      ggaaacattt gatcacttct tccatcaacg atgttgctgt tgataatgct gccgagtacg      1080
136      ctgtcactga gactggattg atgtgccac gtggagcttg cgaagaggat aaaggcgaat      1140
137      caaagtgtca ttatttggag gaaaagaatc aggaacaagg tgcgaaaga gttcagagtt      1200
138      gttggtcgaa caccacttgc caaaagtctt gtgcttatga tcgtcttctt ccaacgaaag      1260
139      aaatcggaac gggatgtgat gcgaacggcg atcgatgtca cgatcaatgc gtgggcgggt      1320
140      gtgagcgtgt gaatgatgcc acagcatgcc acgcgtgcaa gaatgtctat cacaagggaa      1380
141      agtgtatcga aaagtgtgat gctcacctgt accttctcct tcaacgtcgt tgtgtgacct      1440
142      gtgagcagtg tctgcagctg aatccgggtg tctcgaaaca aacagtgcct atcaaggcga      1500
143      cggcaggcct ttgctcggat aaatgtcccg atggttatca aatcaaccgg gatgatcatc      1560
144      gagaatgccg aaaatgcgtt ggcaagtgtg agattgtgtg cgagatcaat caggtcattg      1620
145      atacgtttcc gaaggcacag gcgatcaggc tatgcaatat tattgacgga aatctgacga      1680
146      tcgagattcg cggaaaacag gattcgggaa tggcgtccga gttgaaggat atatttgcga      1740
147      acattcacac gatcacgggc tacctgttgg tacgtcaatc gtcaccgttt atctcgttga      1800
148      acatgttccg gaatttacga cgtattgagg caaagtcact gttcagaaat ctatatgcta      1860
149      tcacagtttt tgaaaatccg aatttataaa agctattcga ttcaacgacg gatttgacgc      1920
150      ttgatcgtgg aactgtgtca attgccata acaagatgtt atgcttcaag tatatcaagc      1980
151      agctaattgt aaagttaaat ataccactcg atccgataga tcaatcagaa gggacaaatg      2040
W--> 152      gtgagaaggn aatctgtgag gatattggcaa tcaacgtgag catcacagcg gtcaacgcgg      2100

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153	actcgggtcctt	cttttagttgg	ccttcattca	acattaccga	tatagatcag	cgaaagtttc	2160
154	tcggctacga	gctctttcttc	aaagaagtc	cacgaatcga	tgagaacatg	acgatcgaag	2220
155	aggatcgaag	tgcgtgtgtc	gattcgtggc	agagtgtctt	caaacagtac	tacgagacgt	2280
156	cgaacggtga	accgaccccg	gacattttta	tggatattgg	accgcgcgag	cgaattcggc	2340
157	cgaatacgt	ctacgcgtac	tatgtggcga	cgcagatggg	gttgcacg	gggtgcgaaga	2400
158	acgggtgtatc	gaagattggg	tttgtgagga	cgagctacta	tacgcctgat	cctccgacgt	2460
159	tggcactagc	gcaagtcgat	tcggacgcta	ttcatattac	gtgggaagcg	ccgctccaac	2520
160	cgaacggaga	cctcacgcat	tacacaatta	tgtggcgtga	gaatgaagt	agcccgtag	2580
161	aggaagccga	aaagttttgg	acagatgcaa	gcaccccg	aaatcgacaa	cgcacgaaag	2640
162	atccgaaaga	gacgattgta	gccgataagc	cagtcgat	tccgtcatca	cgtaccgtag	2700
163	ctccgacact	tttgactatg	atgggtcacg	aagatcagca	gaaaacgtgc	gctgcaacgc	2760
164	ccggttggtg	ttcgtgttcg	gctatcgaag	aatcatcgga	acagaacaag	aagaagcgac	2820
165	cggatccgat	gtcggcgatc	gaatcatctg	catttgagaa	taagctgttg	gatgaggttt	2880
166	taatgccgag	agacacgatg	cgagtgcgac	gatcaattga	agacgcgaat	cgagtcagtg	2940
167	aagagttgga	aaaagctgaa	aatttgggaa	aagctccaaa	aactctcggt	ggaaagaagc	3000
168	cgctgatcca	tatttcgaag	aagaagccgt	cgagcagcag	caccacatcc	acaccggctc	3060
169	caacgatcgc	atcaatgtat	gccttaacaa	ggaaaccgac	tacggtgccg	ggaacaagga	3120
170	ttcggctcta	cgagatctac	gaacctttac	ccggaagctg	ggcgattaat	gtatcagctc	3180
171	tggcattgga	taatagttat	gtgatacgaa	atttgaagca	ttacacactt	tatgcgattt	3240
172	ctctatccgc	gtgccaaaac	atgacagtac	ccggagcatt	ttgctcaata	tcccatcggt	3300
173	cgggagcatt	gaaacgaaca	aaacacatca	cagacattga	taaagtgttg	aatgaaacaa	3360
174	ttgaatggag	atttatgaat	aatagtcaac	aagtcaacgt	gacgtgggat	ccaccgactg	3420
175	aagtgaatgg	tggaatattc	ggttatgttg	taaagcttaa	gtcaaaagtc	gatggatcaa	3480
176	ttgttatgac	gagatgtgtc	ggtgcgaaga	gaggatattc	aacacggaat	caggggtgtcc	3540
177	tattccagaa	tttggccgat	ggacgttatt	ttgtctcagt	aacggcgacc	tctgtacacg	3600
178	gcgctggacc	ggaagccgaa	tcctccgacc	caatcgtcgt	catgacgcca	ggcttcttca	3660
179	ctgtggaaat	cattctcggc	atgcttctcg	tctttttgat	tttaattgtc	attgccgggt	3720
180	gtataatcta	ctactacatt	caagtacgct	acggcaaaaa	agtgaagctc	ctatctgact	3780
181	ttatgcaatt	gaatcccgaa	tattgtgtgg	acaataagta	caatgcagac	gattgggagc	3840
182	tacggcagga	tgatgttgtg	ctcggacaac	agtgtggaga	gggatcattc	ggaaaagtgt	3900
183	acctaggaac	tggaaataat	gttgtttctc	tgatgggtga	tcgtttcgga	ccgtgtgcta	3960
184	ttaagattaa	tgtagatgat	ccagcgtcga	ctgagaatct	caactatctc	atggaagcta	4020
185	atattatgaa	gaactttaag	actaacttta	tcgtccaact	gtacggagtt	atctctactg	4080
186	tacaaccagc	gatggttgtg	atggaaatga	tggatcttgg	aaatctccgt	gactatctcc	4140
187	gatcgaacg	cgaagacgaa	gtgttcaatg	agacggactg	caactttttc	gacataatcc	4200
188	cgagggataa	attccatgag	tgggcccgcac	agattttgtga	tggatggcg	tacctggagt	4260
189	cgctcaagtt	ttgccatcga	gatctcgccg	cacgtaattg	catgataaat	cgggatgaga	4320
190	ctgtcaagat	tggagatttc	ggaatggctc	gtgatctatt	ctatcatgac	tattataagc	4380
191	catcgggcaa	gcgtatgatg	cctgttcgat	ggatgtcacc	cgagtcgttg	aaagacggaa	4440
192	agtttgactc	gaaatctgat	gtttggagct	tcggagttgt	tctctatgaa	atggttacac	4500
193	tcggtgctca	gccatatatt	ggtttgagta	atgatgaggt	gttgaattat	attggaatgg	4560
194	cccggaaaggt	tatcaagaag	cccgaatgtt	gtgaaaacta	ttggtataag	gtgatgaaaa	4620
195	tgtgctggag	atactcacct	cgggacgtc	cgacgttcct	ccagctcgtt	catcttctag	4680
196	cagctgaagc	ttcaccagaa	ttccgagatt	tatcatttgt	cctaaccgat	aatcaaatga	4740
197	tccttgacga	ttcagaagca	ctggatcttg	atgatattga	tgatactgat	atgaatgatc	4800
198	aggttgctga	ggtggcaccg	gatgttgaga	acgtcgaggt	tcagagtgat	tcggaacgtc	4860
199	ggaatacggg	ttcaataaccg	ttgaaacagt	ttaagacgat	ccctccgac	aatgcgacga	4920
200	cgagtcattc	gacaatatcg	attgatgaga	caccgatgaa	agcgaagcag	cgagaaggat	4980
201	cgctggatga	ggagtacgca	ttgatgaatc	atagtggagg	tccgagtgat	gcggaagttc	5040

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Output Set: N:\CRF4\11152004\I963693B.raw

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202      ggacgtatgc tgggtgatgga gattatgtgg agagagatgt tgcagagagaat gatgtgccaa      5100
203      cgcgacgaaa tactggtgca tcaacatcaa gttacacagg tgggtggtcca tattgcctaa      5160
204      caaatcgtgg tggttcaaat gaacgaggag ccggttttcgg tgaagcagta cgattaactg      5220
205      atggtggtgg aagtggacat ttaaatagat atgattatgt tgaaaaagag atatcatcca      5280
206      tggatacgcg cgggagcacg ggcgcctcga gctcttccca cgggtgttcca cagacgaatt      5340
207      ggagtggaaa tcgtggtgcc acgtattata cgagtaaagc tcaacaggca gcaactgcag      5400
208      cagcagcagc agcagcagct ctccaacagc aacaaaatgg tggtcgaggc gatcgattaa      5460
209      ctcaactacc cggaactgga cttttacaat cgacacgtgg tggacaagat ggagattata      5520
210      ttgaaactga accgaaaaat tatagaaata atggatctcc atcgcgaaac ggcaacagcc      5580
211      gtgacatttt caacggacgt tcggctttcg gtgaaaatga gcattctaac gaggataatg      5640
212      agcatcatcc acttgtctga aacccccaaa aaatcccgcc tcttaaatta taaattatct      5700
213      cccacattat catatctcta cagcaatata ggattttttt tcagattttt tctgaaaaat      5760
214      tctgaataat ttaccatcat ttttcaaata tctgtatttt tttttgttat tacccc      5816

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216 &lt;210&gt; SEQ ID NO: 12

217 &lt;211&gt; LENGTH: 1724

218 &lt;212&gt; TYPE: PRT

219 &lt;213&gt; ORGANISM: Caenorhabditis elegans

220 &lt;400&gt; SEQUENCE: 12

```

221      Met Thr Ser Leu Met Leu Leu Leu Leu Phe Ala Phe Val Gln Pro Cys
222      1          5          10          15
223      Ala Ser Ile Val Glu Lys Arg Cys Gly Pro Ile Asp Ile Arg Asn Arg
224      20          25          30
225      Pro Trp Asp Ile Lys Pro Gln Trp Ser Lys Leu Gly Asp Pro Asn Glu
226      35          40          45
227      Lys Asp Leu Ala Gly Gln Arg Met Val Asn Cys Thr Val Val Glu Gly
228      50          55          60
229      Ser Leu Thr Ile Ser Phe Val Leu Lys His Lys Thr Lys Ala Gln Glu
230      65          70          75          80
231      Glu Met His Arg Ser Leu Gln Pro Arg Tyr Ser Gln Asp Glu Phe Ile
232      85          90          95
233      Thr Phe Pro His Leu Arg Glu Ile Thr Gly Thr Leu Leu Val Phe Glu
234      100         105         110
235      Thr Glu Gly Leu Val Asp Leu Arg Lys Ile Phe Pro Asn Leu Arg Val
236      115         120         125
237      Ile Gly Gly Arg Ser Leu Ile Gln His Tyr Ala Leu Ile Ile Tyr Arg
238      130         135         140
239      Asn Pro Asp Leu Glu Ile Gly Leu Asp Lys Leu Ser Val Ile Arg Asn
240      145         150         155         160
241      Gly Gly Val Arg Ile Ile Asp Asn Arg Lys Leu Cys Tyr Thr Lys Thr
242      165         170         175
243      Ile Asp Trp Lys His Leu Ile Thr Ser Ser Ile Asn Asp Val Val Val
244      180         185         190
245      Asp Asn Ala Ala Glu Tyr Ala Val Thr Glu Thr Gly Leu Met Cys Pro
246      195         200         205
247      Arg Gly Ala Cys Glu Glu Asp Lys Gly Glu Ser Lys Cys His Tyr Leu
248      210         215         220
249      Glu Glu Lys Asn Gln Glu Gln Gly Val Glu Arg Val Gln Ser Cys Trp
250      225         230         235         240
251      Ser Asn Thr Thr Cys Gln Lys Ser Cys Ala Tyr Asp Arg Leu Leu Pro

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**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:11; N Pos. 2050  
Seq#:31; N Pos. 3,12,15,18,21  
Seq#:32; N Pos. 7,8,9,12,15  
Seq#:115; Xaa Pos. 4,5,11,12,16,37,38,39,41,42,43,47  
Seq#:126; Xaa Pos. 20,21,22  
Seq#:127; Xaa Pos. 20,21,22  
Seq#:128; Xaa Pos. 20,21,22  
Seq#:129; Xaa Pos. 20,21,22  
Seq#:130; Xaa Pos. 20,21,22  
Seq#:131; Xaa Pos. 20,21,22  
Seq#:132; Xaa Pos. 20,21,22  
Seq#:133; Xaa Pos. 20,21,22  
Seq#:134; Xaa Pos. 20,21,22  
Seq#:135; Xaa Pos. 20,21,22  
Seq#:136; Xaa Pos. 20,21,22  
Seq#:137; Xaa Pos. 20,21,22  
Seq#:138; Xaa Pos. 20,21,22  
Seq#:139; Xaa Pos. 20,21,22  
Seq#:140; Xaa Pos. 20,21,22  
Seq#:141; Xaa Pos. 20,21,22  
Seq#:142; Xaa Pos. 20,21,22  
Seq#:143; Xaa Pos. 20,21,22  
Seq#:144; Xaa Pos. 20,21,22  
Seq#:145; Xaa Pos. 20,21,22  
Seq#:146; Xaa Pos. 20,21,22  
Seq#:147; Xaa Pos. 20,21,22  
Seq#:148; Xaa Pos. 20,21,22  
Seq#:149; Xaa Pos. 20,21,22  
Seq#:150; Xaa Pos. 20,21,22  
Seq#:151; Xaa Pos. 20,21,22  
Seq#:152; Xaa Pos. 20,21,22  
Seq#:153; Xaa Pos. 20,21,22  
Seq#:238; Xaa Pos. 84,85,86,87,88,89,90,91,92,93,94,95,96  
Seq#:304; Xaa Pos. 4,5  
Seq#:318; N Pos. 6  
Seq#:323; Xaa Pos. 2,3,5,6

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/963,693B

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Input Set : N:\CrF3\RULE60\09963693b.raw.txt

Output Set: N:\CRF4\11152004\I963693B.raw

L:6 M:270 C: Current Application Number differs, Wrong Format  
L:152 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:2040  
L:743 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0  
L:756 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0  
L:3184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:115 after pos.:0  
M:341 Repeated in SeqNo=115  
L:3394 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:126 after pos.:16  
L:3410 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:127 after pos.:16  
L:3426 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:128 after pos.:16  
L:3442 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:129 after pos.:16  
L:3458 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:130 after pos.:16  
L:3474 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:131 after pos.:16  
L:3490 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:132 after pos.:16  
L:3506 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:133 after pos.:16  
L:3522 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:134 after pos.:16  
L:3538 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:135 after pos.:16  
L:3554 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:136 after pos.:16  
L:3570 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:137 after pos.:16  
L:3586 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:138 after pos.:16  
L:3602 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:139 after pos.:16  
L:3618 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:140 after pos.:16  
L:3634 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:141 after pos.:16  
L:3650 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:142 after pos.:16  
L:3666 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:143 after pos.:16  
L:3682 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:144 after pos.:16  
L:3698 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:145 after pos.:16  
L:3714 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:146 after pos.:16  
L:3730 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:147 after pos.:16  
L:3746 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:148 after pos.:16  
L:3762 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:149 after pos.:16  
L:3778 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:150 after pos.:16  
L:3794 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:151 after pos.:16  
L:3810 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:152 after pos.:16  
L:3826 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:153 after pos.:16  
L:5600 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:238 after pos.:80  
L:6421 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:304 after pos.:0  
L:6904 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:318 after pos.:0  
L:6944 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:323 after pos.:0